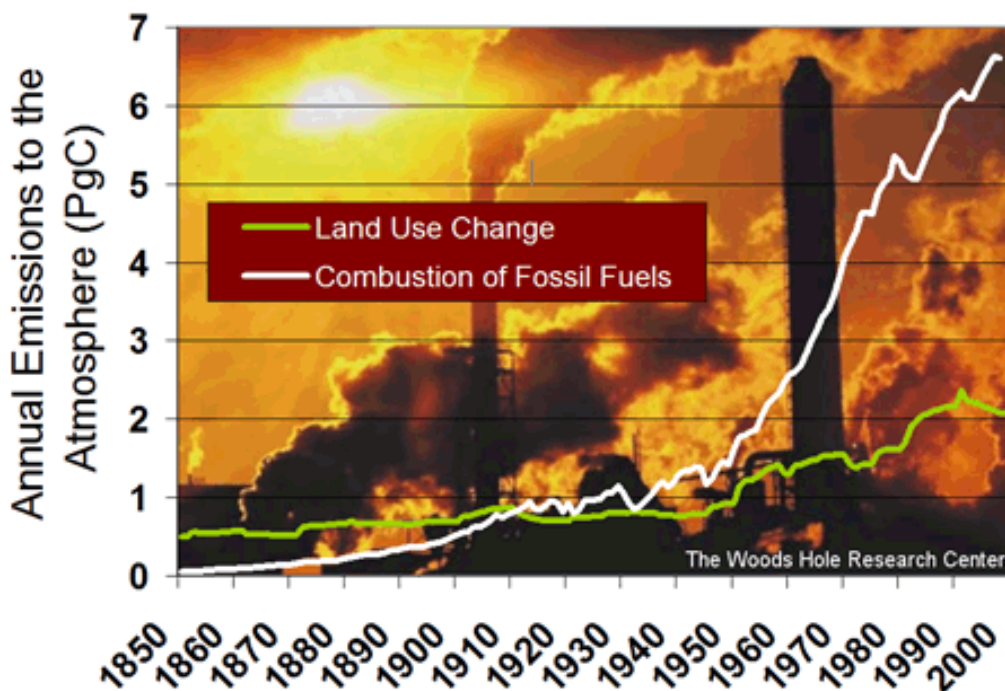


Fossil Fuels & the Carbon Cycle

Carbon is what we (as well as all of the other plants and animals on earth) are made of (50% of our dry weight). It is also what fossil fuels are made of – having been buried deep in the earth for million of years and now being burned and emitted back into the earth's biological carbon cycles.

COMBUSTION Carbon, in the form of carbon dioxide (CO_2), is the major greenhouse gas released to the atmosphere as a result of human activities.

The continued release of greenhouse gases is raising the temperature of the earth, disrupting the climates we and our current agricultural systems depend on, and raising sea-level. The concentration of CO_2 in the atmosphere has already increased by about 30% since the start of the industrial revolution sometime around the middle of the 19th century.



Most of the increase in atmospheric CO_2 concentrations came from and will continue to **come from the use of fossil fuels (coal, oil, and natural gas)** for energy, but about 25% of the increase over the last 150 years came from **changes in land use**, for example, the clearing of rain forests and the cultivation of soils for food production.